CLINICAL LECTURE ON CHOREA, AND ITS TREATMENT.

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WE will pass on, then, to the consideration of the question, What is the best plan of treating ordinary cases? In the first place, knowing that some at least will get well if placed in suitable conditions, we have to say what conditions are suitable. Amongst the most important is a sufficiency of good, plain, wholesome food. Even more important than this, in my estimation, is rest in bed, which keeps the muscular and nervous systems in the greatest attainable repose, and thus prevents wear and tear; it also secures an uniform warm temperature. I prescribe two tablespoonfuls of compound decoction of aloes twice or thrice a day, as these patients are very often constipated; and an aloetic purgative is more likely than any other to bring away ascarides or joints of tapeworm, should any be present; and we know that worms seem to be sometimes the exciting cause of chorea. It is not desirable to produce much action on the bowels; and, to avoid this, it may be necessary to omit or diminish the medicine.

Under these circumstances, patients often begin to improve very soon, and in not a few of them the improvement is continuously progressive. When this is so, I act upon that greatest of therapeutic maxims, "Let well alone."

One word upon the way to ascertain whether they are improving or not. I often see cases of chorea that, so far as I can judge from my own observation, are stationary, whereas the nurse assures me that they are much better. The nurse is always right. She sees them continually throughout the day. I see them for a short time only; and my speaking to them produces emotional excitement, and enhances their movements. Occasionally the converse happens; the visit produces a sedative effect for the time, and the patient seems better, though not really so. This temporary sedation is commonly followed by increased agitation. These are not the only cases in which you may get valuable opinions from nurses; and my advice to you is, never to neglect this source of information; and do not be affronted if the nurse tell you that the patient is worse since you changed his medicine, or otherwise disparages your judgment. You need not, of course, take all that a nurse tells you for gospel, but must exercise your wits in sifting the chaff from the wheat. In our present case, I learned in this way the interesting fact that the man's involuntary movements are greater if he gets fatigued.

If the patient do not begin to improve in a few days, or if his improvement be not continuous, it is, in my opinion, needful to do something more. There are several drugs which enjoy a certain repute as controllers of choreic motions. The chief are preparations of zinc, of iron, and of arsenic. When I first came to this hospital, I found chorea commonly, if not invariably, treated with sulphate of zinc, and accordingly adopted it. I begin, then, under these circumstances, with two or three grains of sulphate of zinc in water three times a day. Many cases get on very well without augmentation of this dose; but I will not affirm with positiveness that in such cases the recovery is not spontaneous. In a good many cases, however, it is evident that this dose is insufficient. If that be apparent, I increase it, and determine the amount of increase upon principles which have, at all events, the merit of being definite. Sulphate of zinc is one of those drugs which produce distinct effects if given to a healthy person. In a sufficient dose, it causes vomiting; in a less one, nausea. There are others, such as arsenic, quinine, belladonna, etc., which have what is generally styled a physiological, but which would with greater accuracy be termed a pathological, action on the human body. Now it seems to me that we may reasonably lay down the following therapeutic axiom.

Drugs which have a physiological reaction have not had a fair trial unless they produce either

- a. Diminution of the symptoms or disease for which they were given; or
- b. Their recognised physiological action.

That is to say that, until they have produced their physiological action, they cannot be pronounced to be impotent to produce the intended curative effect. If the curative effect be produced, we have no desire to see any physiological effect; which, indeed, we shall probably be much better without.

With regard to sulphate of zinc, I have repeatedly found slight physiological effects; viz., nausea coincides with distinct therapeutical effects, and a smaller dose is in rebellious cases inoperative. For example, the patient improves only when each dose produces slight nausea; and when the stomach has become inured to that dose, as it will in a few days, improvement ceases, to recommence so soon as the dose has been augmented to a nauseating quantity. It is surprising what a large quantity is at times required to satisfy this very plain and practical test, as we shall see directly, when we come to examine into our present case.

I should have mentioned that the dose sometimes causes a spurious nausea, due, not to emetic action of the drug on the stomach, but to the fact that the dose is disagreeable to the palate. Before discovering this, I was much puzzled by a case where the nurse told me each dose produced nausea, and yet the symptoms did not yield, as they soon did to a suitable dose. In our present case, the patient, a man, is forty-five years old, and has been affected for twelve months. I have never seen a patient nearly so old as this, and I am not aware of any case in which simple chorea has commenced so late as forty-four; though cases are recorded of women in whom, commencing about forty, it had lasted seven or eight years, making them at the end of that time older than our patient. He has been all the time in comfortable circumstances, and had not lost weight before admission nor has he gained since; we are therefore entitled to assume that his improvement is not due merely to improved circumstances, but may fairly be attributed to medicine. Twelve months was quite long enough to leave the case to nature to cure if she could, but she could not. His general health was good. The disease commenced in his feet and gradually spread over his body, so that, on admission, his legs, arms, head, face, and tongue "danced," and had done so for many months. He was not confined to bed, as adults often rebel against such treatment, and I was anxious to keep him under observation; and I confess that it seemed to me more probable that it was a case of organic disease than of pure chorea, and that his chances of recovery were limited, for it is an undoubted fact that chorea may depend upon organic disease of the nervous centres.* He was ordered two grains of sulphate of zinc in water, one grain to be added to each dose day by day—i. e., on the second day he took three grains for each dose, on the third day four grains, and so on. Day after day, day after day, no amendment. The first time the nurse said she thought him a little better, was on the day that each dose contained thirty grains. The dose was still augmented, till he took two drachms in one day. No nausea was excited. But the bowels having become relaxed, as I thought possibly from the drug, I reduced his daily allowance to one drachm, and in twenty-four hours the diarrhoea ceased. Improvement, which was at first most apparent in the parts latest attacked, still continued, and he is at the present time much improved, though still not well, and I am still inclined to the opinion that the case is probably one of organic disease. There is no sign or symptom of cardiac or arterial disease. Now, I have already said that, in my opinion, we may fairly connect the treatment and the improvement as cause and effect, and I think that so considerable a result in what may turn out to be a necessarily incurable case, in consequence of organic changes, speaks most strongly in favour of the efficacy of the treatment. There remains the question, Would a small dose have been equally efficacious with the large one? I think not; firstly, because I have seen many cases where a large dose was needed to produce any sensible or obvious effect upon the symptoms; secondly, because here no amelioration was discovered till the dose was, and for some little time had been, a considerable one. I should not have cared about the diarrhoea but for two reasons; one, because diarrhoea is a troublesome and unpleasant circumstance; the other, because it has been said that a continuance of large doses of sulphate of zinc may produce marasmus. If this be so, it is unwise to run the risk of such a result; and irritation of the mucous membrane of the intestines, such as diarrhoea indicates, may certainly so destroy the absorbent power of the intestines as to induce marasmus.

This case then, which is in many other respects so interesting, illustrates these four points.

1. Choreia does not always wear itself out and get well spontaneously.
2. Sulphate of zinc does exercise an influence over choreic movements.
3. The stomach and system at large will at times tolerate much larger doses of this drug than are commonly given.
4. Doses of unusual magnitude may be required before any curative influence is manifested.

* Concluded from page 679 of last number.

* Dr. J. W. Ogle, *Medico-Chirurgical Review*.